

Prognosis is variable, depending on the type and severity of the mental retardation. In general, children with mild mental retardation (85% of those with MR) can anticipate gaining academic skills at about the sixth-grade level, with the ability to hold a job and function with minimal supports in the community. Prognosis is markedly improved with early intervention and education, a focus on job skills and independent living skills, good medical care of physical and psychiatric illness, and a supportive environment.



TIP
Many child and adolescent psychiatrists never gain the skills and comfort level to work with severely mentally retarded children. Odd or unpredictable behavior may be off-putting, deficits in language skills make diagnosis and treatment especially challenging, and the risk of aggressive behavior in some children may be frightening. However, I have found working with this group of children to be highly gratifying. Interventions can be quite helpful. Your child and adolescent psychiatry expertise in providing assistance to the family, the school, and the child may make a substantial positive influence on the child's prognosis.

4 Learning Disorders

Essential Concepts

- A learning disability is a significant discrepancy between assessed cognitive ability and assessed academic achievement.
- Learning disorders of reading, mathematics, and written language are defined in the Diagnostic and Statistical Manual (DSM-IV-TR).
- Children with learning disorders have a high prevalence of comorbid emotional and behavioral difficulties.
- Early identification and intervention are essential for optimal prevention of further learning, emotional, and behavioral problems.

Identification and intervention of learning disabilities (LDs) in children is primarily the function of the educational system. However, children with LD have many risk factors for emotional and behavioral difficulties: frustration at school, poor self-esteem, criticism by adults who don't understand the disability, and biological vulnerabilities. It is these secondary disorders that prompt consultation to a mental health professional.

Early detection and specialized tutoring and teaching techniques may be quite helpful in improving prognosis. Additionally, it is essential that the child, his or her parents, and school personnel have a good understanding of the nature of the disability, to minimize the risk of the child "feeling stupid," academic failure, and criticism for "not trying" or being "lazy," which may erode self-esteem and precipitate emotional and behavioral difficulties. Because children with learning disabilities are usually bright, they are more cognizant of their difficulties than individuals with more pervasive cognitive and learning issues. It is heartbreaking to hear a child call himself "stupid" when he is quite bright but unable to read.

BASIC PRINCIPLES

It should not be assumed that children with special learning needs will have other psychiatric difficulties. However, children with learning disorders have a high incidence of

psychiatric difficulties. An estimated 15 to 25% of children with reading disability will meet criteria for ADHD. School avoidance, depressive moods (14–32%) and anxiety disorders are also common. Overall, girls with LDs are more likely to suffer from internalizing symptoms and boys from externalizing symptoms. Additionally, learning disorders frequently co-occur. It is common for a child to demonstrate more than one learning disorder or a concomitant language disorder.

Diagnostic Criterion and Epidemiology

All learning disorders are diagnosed by the administration of an individually administered standardized measure of intelligence (such as the Wechsler Intelligence Scale for Children—WISC) and an individually administered achievement test (such as the Wechsler Individual Achievement Test—WIAT). If the academic achievement in a given area (reading, mathematics, or written language) is substantially below that expected given the person's chronological age, education, and measured intelligence, and is functionally impairing, a learning disorder may be diagnosed. The Individuals with Disability Education Act (IDEA PL 94-142) provides for services under the classification of Specific Learning Disability. For a child to be eligible for special education services, a statistically significant difference of at least 1.5 to 2 standard deviations between assessed academic achievement and cognitive ability must exist.

Table 4.1 chronicles the characteristics of the LDs.

KEY POINT

Child and adolescent psychiatrists and other mental health professionals can provide essential psychoeducation to parents, school personnel, and the child about the nature of the learning difficulty and advocate for essential educational services. Reframing the task to that of effective teaching and learning (as opposed to a misbehavior or basic flaw) improves a child's self-esteem. Treating coexisting ADHD, if it is present, may also improve the child's ability to focus and learn. Using the child's strengths to find and promote areas in which he or she excels improves self-image and sense of worth.

(Continued)

Reading Disorder (RD)	Mathematics Disorder (MD)	Written Language Disorder (WD)
Clinical features Dyslexia Deficit in phonological awareness— processing sounds (phonemes) that make up language Difficulty with rapid and fluent word retrieval	Two problem areas: Basic math processes and procedural and executive functions Requires higher-order cognitive and ability to express ideas through text	Requires higher-order cognitive and executive functions and ability to express ideas through text
Epidemiology 3–10% of population Male 4: Female 1 No gender difference	1–5% of school-age children No gender difference	Estimated 15–20% of school-age children
Etiology Familial and genetic Reversed asymmetry of brain activation when reading Environmental effects	Familial and genetic Commonly co-occurs with another LD Inferior left prefrontal cortex implicated	Unclear and multi-determined

TABLE 4.1. The Learning Disorders

OTHER SKILLS DISORDERS

In addition to the learning disorders, there are a variety of developmental skills disorders described in DSM. Motor skills disorder (Developmental Coordination Disorder) and the communication disorders (Expressive Language Disorder, Mixed Receptive-Expressive Language Disorder, Phonological Disorder, Stuttering and Communication Disorder, NOS) are developmental disorders characterized by skills (motor or language) which are substantially below those expected given the child's age and measured intelligence. As with other developmental disorders, early identification and intensive evidence-based intervention improve prognosis.

CLINICAL VIGNETTE

Brianna is a bright 6-year-old girl who is in the first grade. She loved kindergarten, but has begun to complain of stomachaches before school and to state that she is too ill to go to school. The teacher states that Brianna has friends and seems to enjoy her peers. However, she is very resistant to doing her school work. She refuses to participate in her small reading group and will not read aloud, as the other children do. This oppositionality is becoming increasingly problematic. When the teacher attempted to test her skill level, Brianna refused to participate. Upon the recommendation of the pediatrician, Brianna received full cognitive and intellectual testing. Although her intellectual functioning was overall in the high average range, her reading ability was in the deficient range. The diagnosis of a reading disability was made. Sharing this information with the parents, teacher, and Brianna helped to reframe her symptoms. She was told that her brain was very smart, but that her brain had a harder time learning to read than many other children (although she was reassured that other children also have reading disorders). This meant that she had to work harder to learn to read than other children, and it was not her fault—it did not mean that she was “dumb” (as she called herself). Brianna began to receive 30 minutes daily of individualized training with the REACH system (a comprehensive phonetic skills teaching system). As she began to learn to read, her complaints about going to school and oppositionality began to subside. Brianna was artistic, and her artwork was displayed (with that of some other children) in the art exhibit area, much to her delight.

TABLE 4.1. The Learning Disorders (continued)

Written Language Disorder (WD)	Mathematics Disorder (MD)	Reading Disorder (RD)	Differential diagnosis	50% of children with MD also have RD	Frequently coexists with other LDs Rule out cultural, environmental, and cognitive issues
Use of a consistent framework for writing	Techniques to increase computational and math problem-solving skills (validated)	Intense, high-quality instruction on phonemic awareness and phonics	Matthew effects—accumulated disadvantage of not being able to read fluently	Chronic and persistent through school	Early intervention improves prognosis
Use of a consistent framework for writing	Techniques to increase computational and math problem-solving skills (validated)	Intense, high-quality instruction on phonemic awareness and phonics	75% with some persistent symptoms to read fluently	Early intervention helpful	Unknown course
Use of a consistent framework for writing	Techniques to increase computational and math problem-solving skills (validated)	Intense, high-quality instruction on phonemic awareness and phonics	40% school dropout rate	Lack of data on clinical course	Unknown course
Use of a consistent framework for writing	Techniques to increase computational and math problem-solving skills (validated)	Intense, high-quality instruction on phonemic awareness and phonics	75% with some persistent symptoms to read fluently	Lack of data on clinical course	Unknown course
Use of a consistent framework for writing	Techniques to increase computational and math problem-solving skills (validated)	Intense, high-quality instruction on phonemic awareness and phonics	40% school dropout rate	Lack of data on clinical course	Unknown course